EXPRESSWAY POLICY FOR THE CITY OF BOSTON

DRAFT

BOSTON CITY
PLANNING BOARD

SEPT. 1953

EXPRESSWAY POLICY FOR THE CITY OF BOSTON

(Second Draft)

Staff Report
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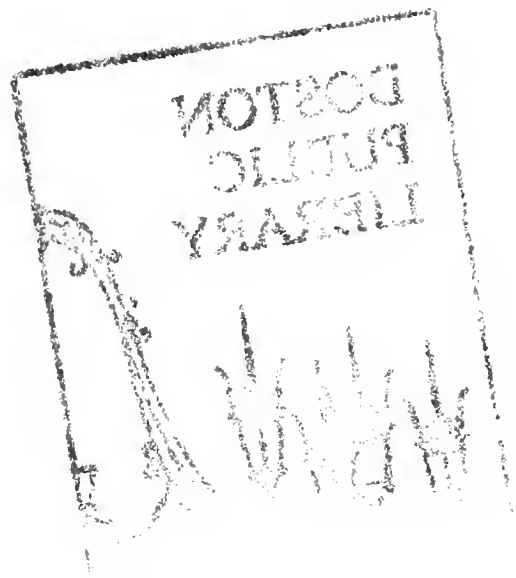
Division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EXPRESSWAY POLICY FOR THE CITY OF BOSTON

Contents of Report

I. INTRODUCTION

The last public statement by the Boston City Planning Board on regional expressway policy was contained in the 1950 Preliminary Report on a General Plan for Boston. A reappraisal of that position is called for at this time in view of new proposals for regional expressways that have been made by various agencies since 1950.

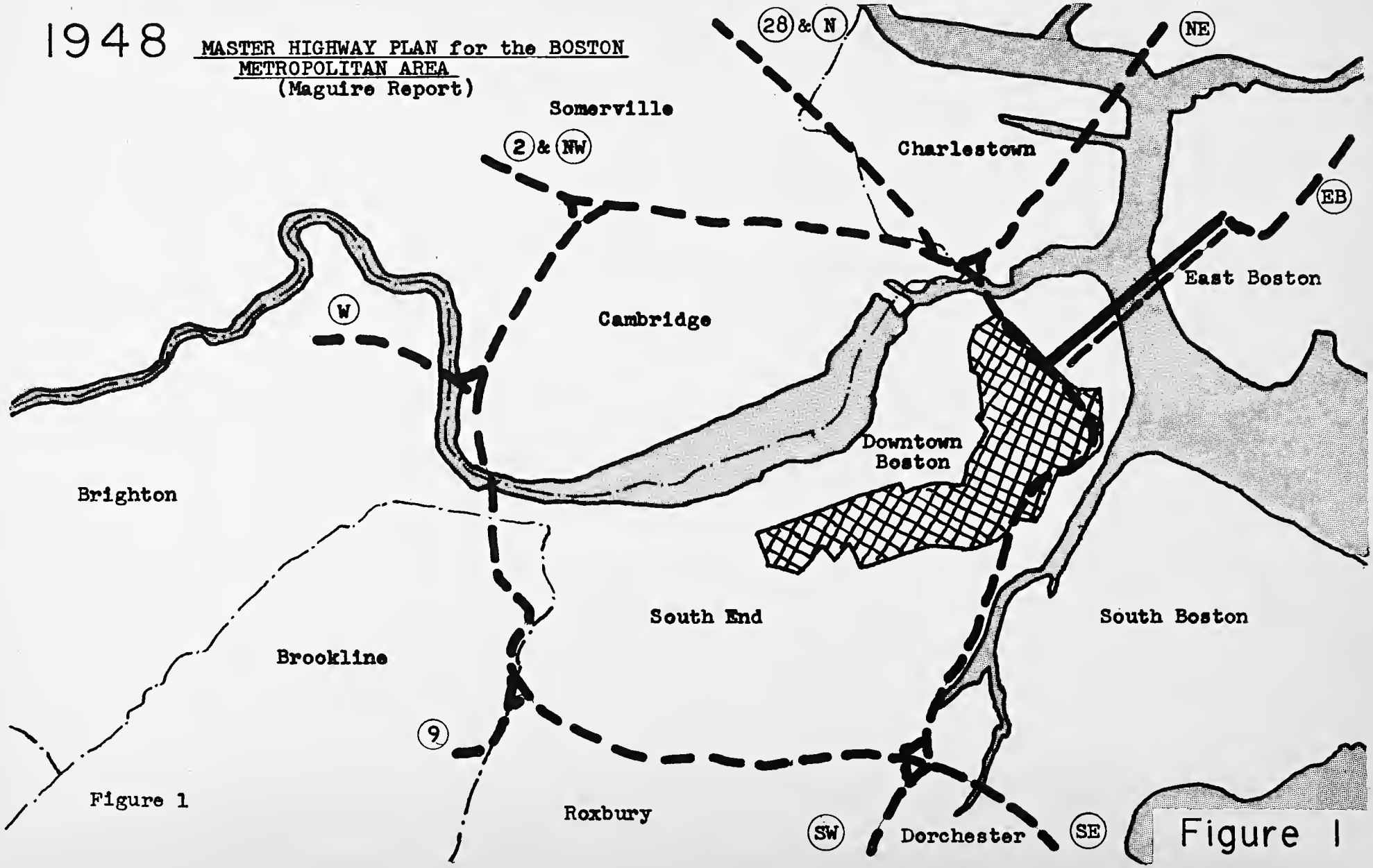
Regional expressways laid out to meet the needs of regional traffic can help or hurt traffic conditions, the use of the land, and the economy of local communities within the region. Sections of the regional expressway system already built in the Boston area have created opportunities and problems for the City of Boston. Expressways yet to be built will vitally affect the physical and economic development of the city. Although the Commonwealth has jurisdiction over the design and construction of regional expressways, the City Planning Board has a responsibility to make proposals for or to propose modifications to plans for regional expressways within the City of Boston in order that future expressways may be constructed with proper regard for local transportation needs, the use of the land, the economy of the city, urban renewal and other elements of General Planning consideration for the future of Boston and the region.

Reviews of past expressway proposals and staff recommendations for future expressway treatment in the City of Boston are included in this report to give the Planning Board a basis for establishing policy positions with regard to current proposals for:

a. the Inner Belt

b. the Massachusetts Turnpike Extension,

c. the Second Tunnel under Boston Harbor.


1948
MASTER HIGHWAY PLAN for the BOSTON METROPOLITAN AREA
(Maguire Report)
28 & N
NE
Somerville
2 & NW
Charlestown
EB
East Boston
W
Cambridge
Downtown Boston
Brighton
South End
South Boston
Brookline
9
Roxbury
SW
Dorchester
SE
Figure 1
Figure 1

II. REVIEW OF REGIONAL EXPRESSWAY PROPOSALS

A. 1948: The Master Highway Plan for the Boston Metropolitan Area

prepared for
The Joint Board for the Metropolitan Master Highway Plan in cooperation with the Public Roads Administration, Federal Works Agency,

by
Charles A. Maguire and Associates; J.E. Greiner Company: DeLeuw Cather and Company.

The basic pattern for the regional expressway system in the Boston Metropolitan Area was established by the 1948 Master Highway Plan, the so-called "Maguire Report". On the basis of a regional Origin and Destination survey carried out in 1945 from which traffic predictions for 1970 were calculated, an inner ring road through Boston, Brookline, Cambridge and Somerville and eight major radial roads were proposed to meet the needs of future vehicular traffic.

The inner ring consisted of the Central Artery, a six lane expressway designed to provide access to downtown Boston; and the Inner Belt, a six lane circumferential expressway designed to collect and distribute traffic among the radial expressways and to by-pass "through" traffic around downtown Boston.

The major radial roads were: (See Figure 1)

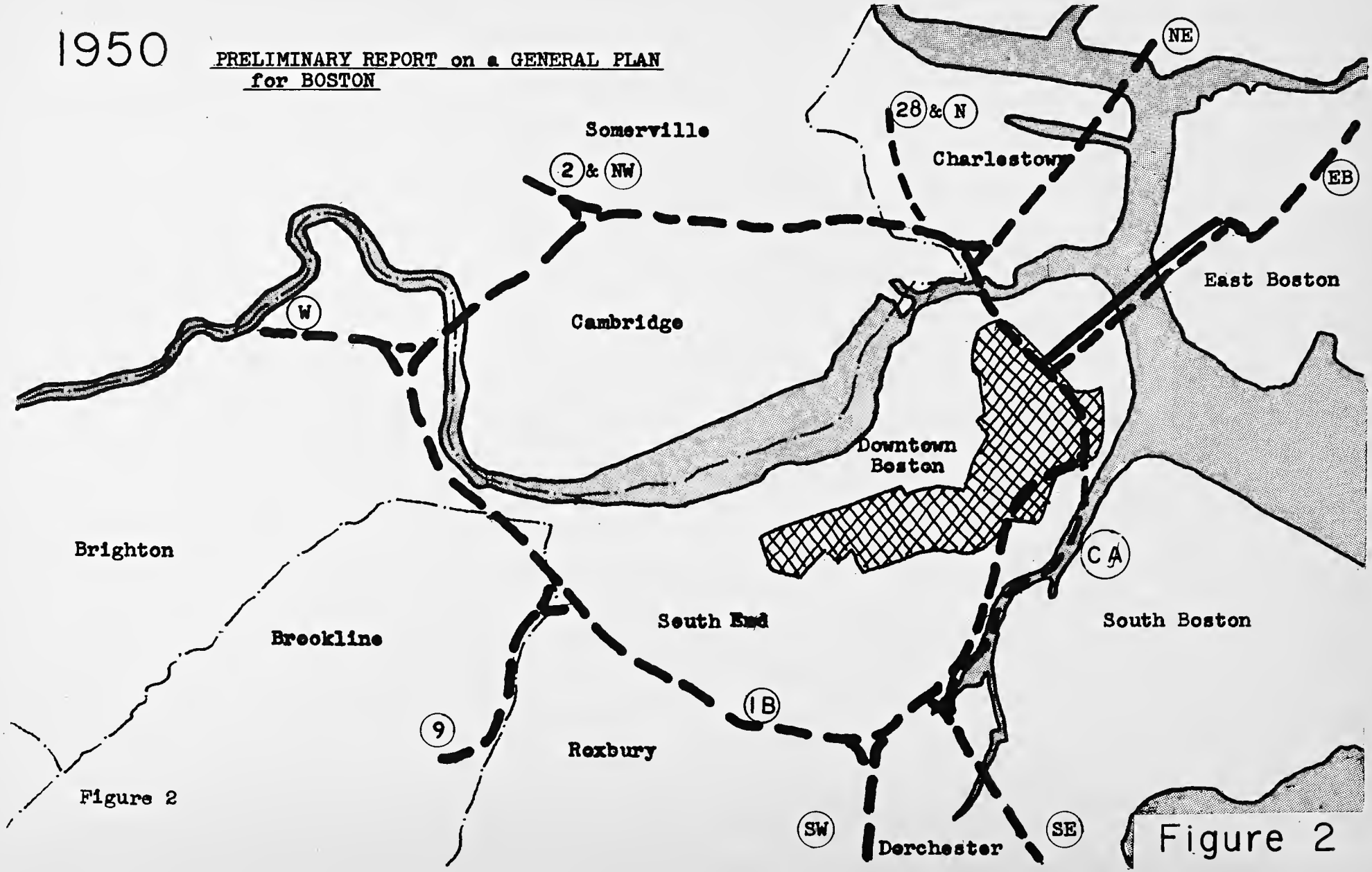
(EB) the East Boston expressway, a six lane road connecting with the Central Artery and downtown Boston through the Sumner Tunnel and a proposed new two lane tube;

(NE) the Northeast expressway, a new six lane road connecting with the Central Artery and Inner Belt via the Mystic River Bridge;

(N) the Northern Expressway, an improvement of the existing Route 28 feeding directly to downtown Boston over the Charles River dam with no direct connection to the inner ring road;

(NW) the Northwest Expressway, a new six lane relocation of Route 3 with a connecting road from Route 2, ending at a direct connection with the Inner Belt;

(W) the Western Expressway, a new six lane highway ending at a direct connection with the Inner Belt;


1950
PRELIMINARY REPORT on a GENERAL PLAN for BOSTON
Somerville
2 & NW
28 & N
NE
Charlestown
EB
East Boston
W
Cambridge
Downtown Boston
CA
Brighton
South End
South Boston
Brookline
1B
9
Roxbury
SW
SE
Dorchester
Figure 2

(9) a short section of expressway connecting Route 9 directly to the Inner Belt;

(SW) the Southwest Expressway, a new six lane highway from Providence ending at a direct connection with the Inner Belt;

(SE) the Southeast Expressway, a new six lane highway from the South Shore ending at a direct connection with the Inner Belt and the Central Artery.

B. 1950: Preliminary Report on a General Plan for Boston,

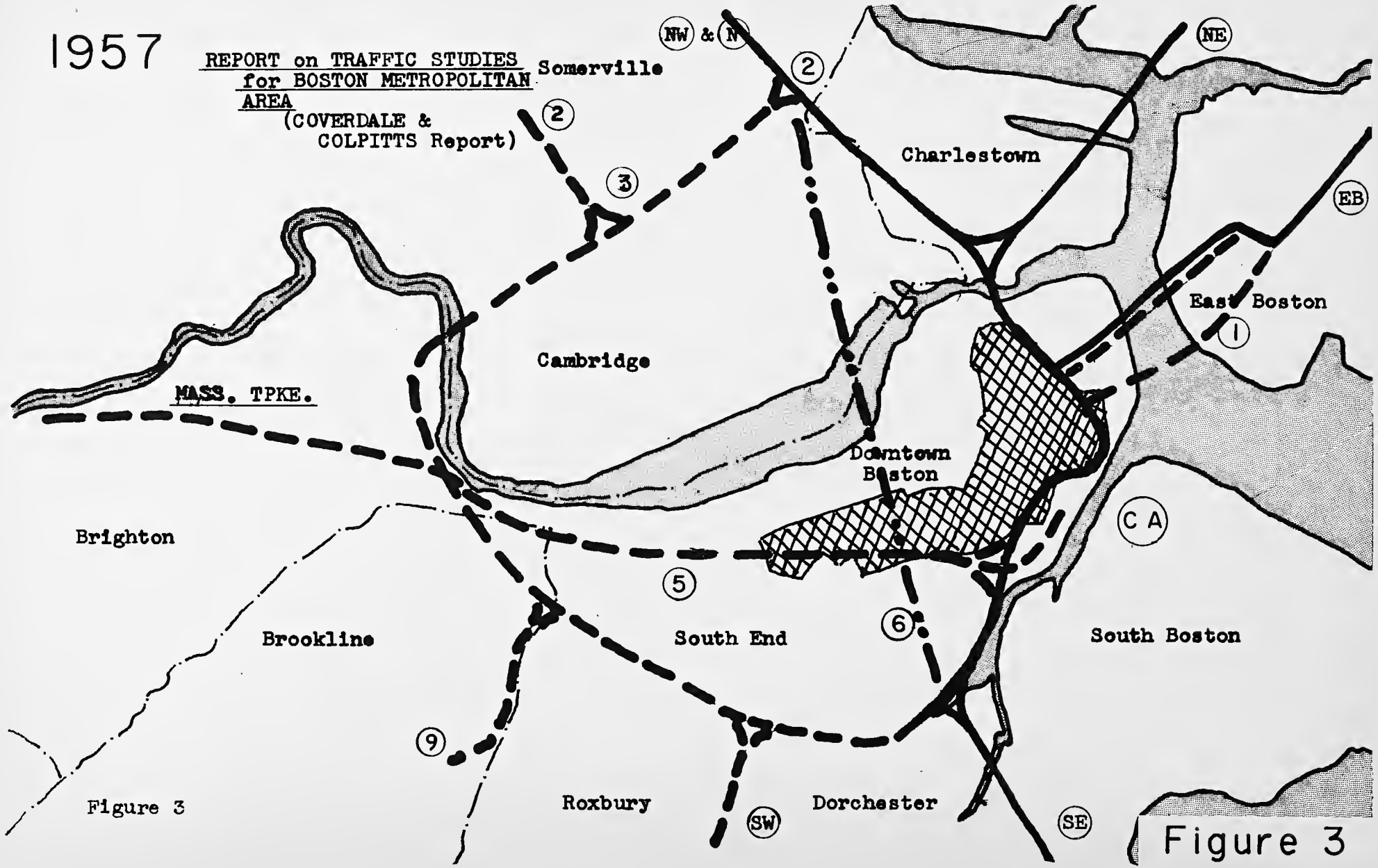
prepared by the City Planning Board.
Consultants: Adams, Howard and Greeley.

The sections of the regional expressway system indicated in the 1950 Preliminary Report on a General Plan for Boston were in accordance with the basic concept of the 1948 Master Highway Plan with the following major changes: (See Figure 2)

(CA) a portion of the Central Artery was proposed along the Fort Point Channel with a second choice route on the inland side of the South Station;

(IB) the Inner Belt route was shifted from Tremont St. to a Ruggles St. alignment;

(W) the interchange between the Western Expressway and the Inner Belt was shifted to the Boston side of the Charles River.


1957
REPORT on TRAFFIC STUDIES for BOSTON METROPOLITAN AREA
(COVERDALE & COLPITTS Report)
Somerville
NW & N
NE
2
2
3
Charlestown
EB
East Boston
1
Cambridge
MASS. TPKE.
Downtown Boston
C A
Brighton
5
6
Brookline
South End
South Boston
9
Roxbury
SW
Dorchester
SE
Figure 3

C. 1957, A Report on Traffic Studies for the Boston Metropolitan Area, prepared for the Massachusetts Department of Public Works by Coverdale and Colpitts, consulting engineers.

"A Report on Traffic Studies for the Boston Metropolitan Area", the so-called Coverdale and Colpitts report, was published by the Massachusetts Department of Public Works on June 22, 1957. The report was part "B" of a three part study. Part "A" dealing with the Massachusetts Turnpike Extension and part "C" dealing with proposals for additional crossings of Boston Harbor have not been released.

By 1957 the following sections of the 1948 Master Highway Plan had been constructed or were under contract for construction: (See Figure 3)

(EB) the East Boston expressway

(NE) the Northeast Expressway

(N) the Northern Expressway, (Route 28)

(CA) the Central Artery

(SE) the Southeast Expressway

The Coverdale and Colpitts report made recommendations for changes and additions to the 1948 Master Highway Plan based on traffic estimates updated from the 1945 Origin and Destination studies that had been carried out for the 1948 Plan. No engineering or cost studies and no recognition of mass transportation or parking needs were contained in the Coverdale and Colpitts report.

The following additions and major changes to the 1948 Master Highway Plan were proposed: (See Figure 3)

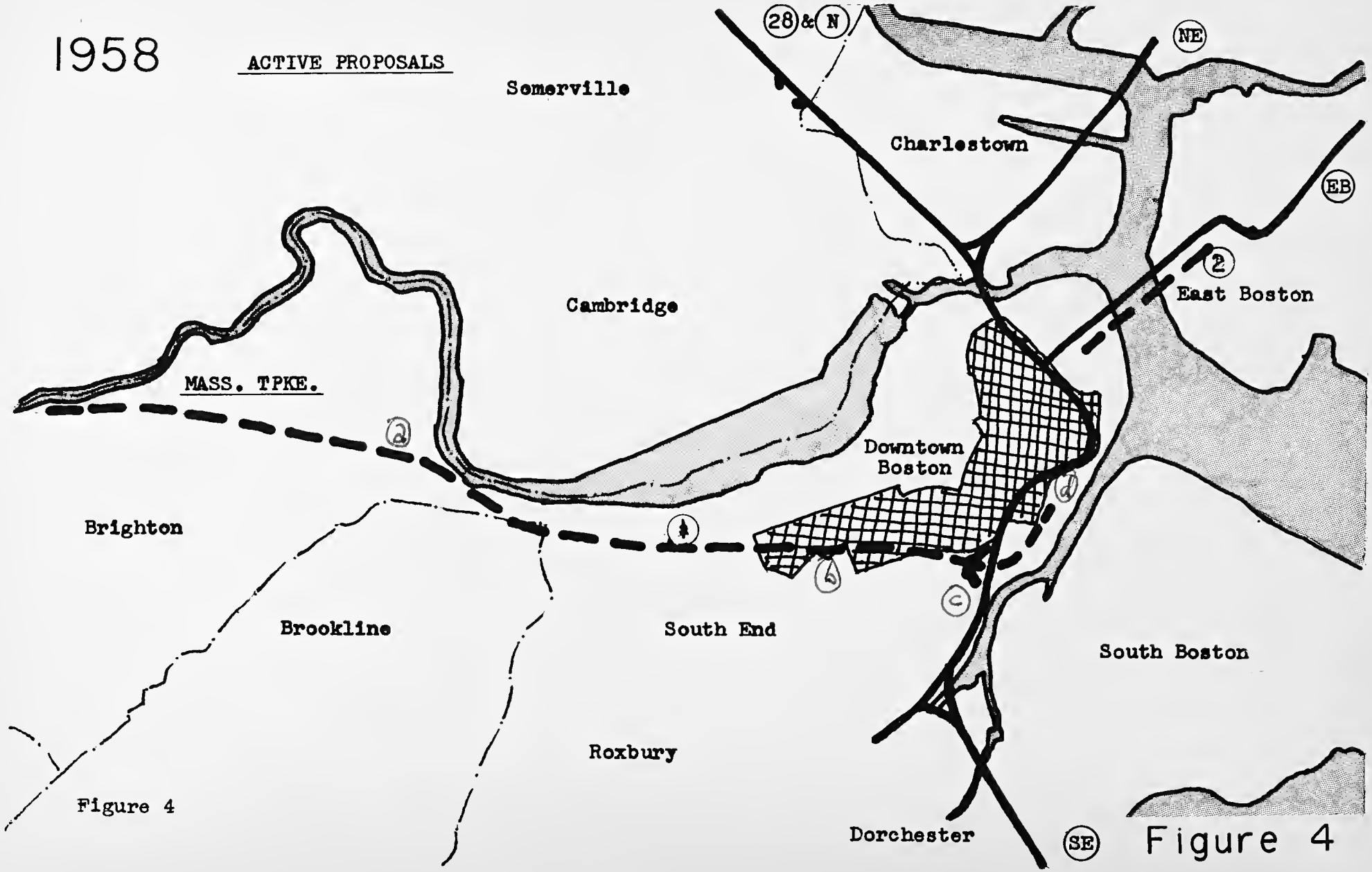
(1) a new high level bridge from the Central Artery to the East Boston Expressway;

(2) direct connection of the Northern Expressway (Route 28) to the Inner Belt in Somerville;

(3) direct connection of an improved Route 2 to the Inner Belt in Cambridge;

(4) the Northwest Expressway (Route 3 relocated) was stopped short of the Inner Belt and connected to Route 2 and Route 28 by new short links of expressway;

(5) the Massachusetts Turnpike extension from Weston to Boston was substituted for the former Western Expressway. The Turnpike extension was continued past the Inner


1958
ACTIVE PROPOSALS
Somerville
Charlestown
Cambridge
East Boston
MASS. TPKE.
Downtown Boston
Brighton
Brookline
South End
South Boston
Roxbury
Dorchester
28 & N
NE
EB
2
a
b
c
d
1
SE
Figure 4

Belt with no connection then through downtown Boston to an interchange with the Central Artery and a final stub to Summer St. at South Station;

(6) a new "inner expressway" was described in the text but not shown in any map:

> ".. along an alignment extending from the vicinity of Interchange 28 - Southampton Street, the junction of the Southeast Expressway and the Belt Expressway, across downtown Boston, passing as near as practical the west end of the Boston Public Gardens (parallel to Berkeley Street) and then across the Charles River to connections with the Northern Expressway near Interchange 75- Sullivan Square."

(7) The widths of the Inner Belt (or Belt Expressway); the Southwest Expressway and other sections of the proposed system were increased from six to eight lanes.

D. 1958: Active Proposals. (See Figure 4)

1. The Massachusetts Turnpike Extension.

The Massachusetts Turnpike Extension from Weston into South Station in Boston is being actively promoted by the Massachusetts Turnpike Authority. Detailed plans have not been made public but newspaper reports indicate that the Turnpike extension is being planned along the Boston and Albany railroad right-of-way as proposed in the Coverdale and Colpitts report.

It is the understanding of the staff that the Turnpike Authority proposes to have connections between the Turnpike and the city street system at four places within the City of Boston:

a. in the vicinity of the Boston and Albany rail yards near Boston University Field,

b. in the vicinity of Copley Square,

c. in the vicinity of the Central Artery and Broadway,

d. at Summer Street near South Station.

2. The Second Tunnel under Boston Harbor.

Two 2-lane tunnels under Boston Harbor from downtown Boston to East Boston were proposed in the "Report on a Thoroughfare Plan for Boston" prepared by the City Planning Board in 1930, with Robert Whitten, Consultant. One 2-lane tube, the Sumner Tunnel, was completed in 1934.

Proposals for the second Tunnel have been under continual discussion since that time.

In August, 1958, the Massachusetts state legislature transferred the responsibility for the construction of a second Tunnel from the Massachusetts Port Authority to the Massachusetts Turnpike Authority. The staff has had no further information with respect to location, design or construction scheduling of the second tunnel.

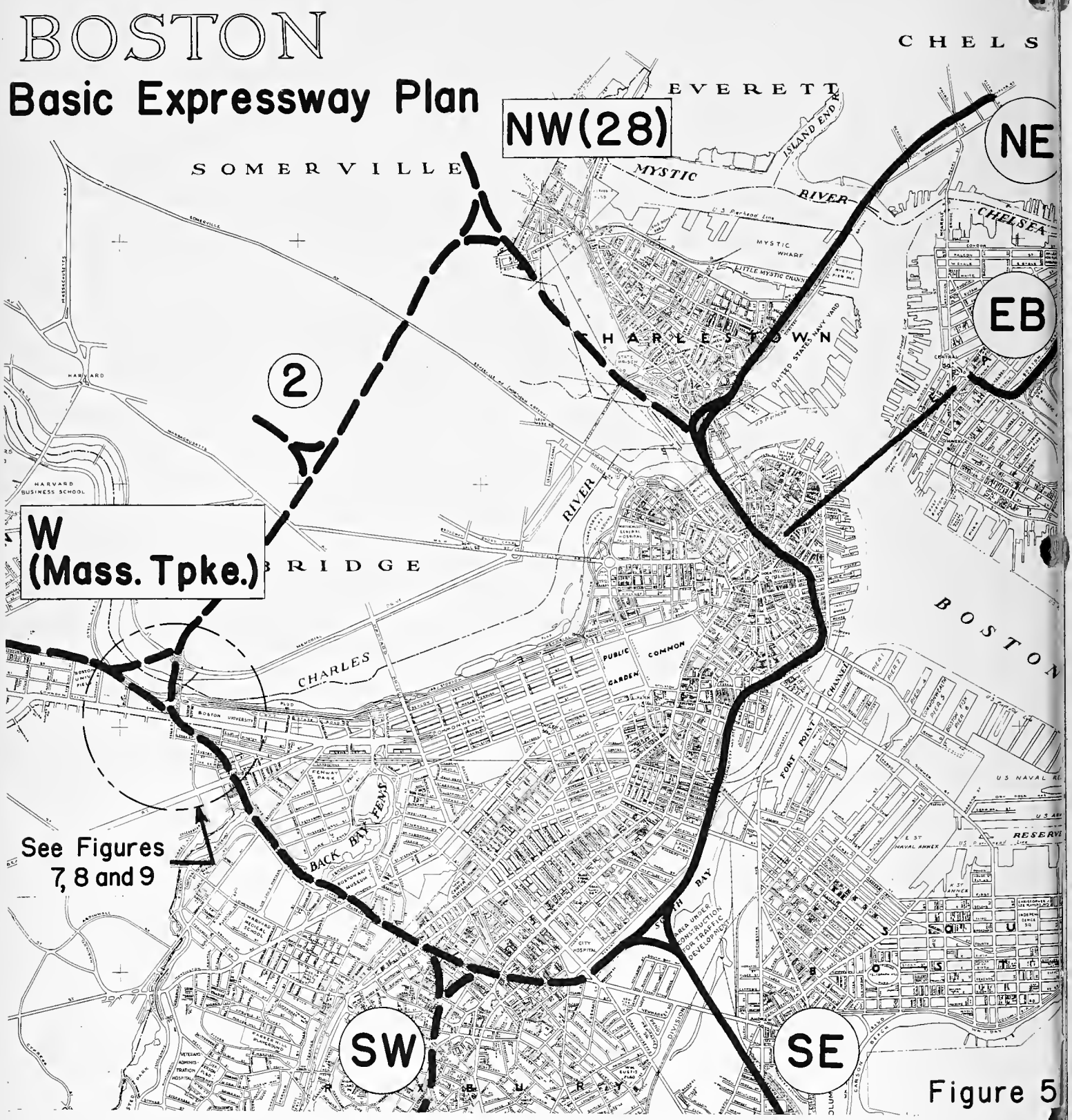

BOSTON
Basic Expressway Plan
NW(28)
NE
EB
W
(Mass. Tpke.)
SW
SE
2
See Figures
7, 8 and 9
SOMERVILLE
EVERETT
CHELSEA
CHARLESTOWN
BOSTON
CHARLES RIVER
MYSTIC RIVER
BACK BAY FENS
PUBLIC GARDEN
COMMON
FORT POINT CHANNEL
SOUTH BAY
HARVARD
HARVARD BUSINESS SCHOOL
BOSTON UNIVERSITY
MASSACHUSETTS
MYSTIC WHARF
U.S. NAVAL RESERVE
U.S. NAVAL ANNEX
AREA UNDER CONSTRUCTION FOR TRAFFIC DEVELOPMENT
CITY HOSPITAL
MEMORIAL DRIVE

Figure 5

III. EXPRESSWAY PROPOSALS BY THE PLANNING BOARD STAFF

A. The Basic Expressway Plan

The staff of the Planning Board has been actively reappraising plans for the regional expressway system in the City of Boston for the past twelve months in conjunction with general land use studies for the business district and residential areas and in specific Urban Renewal areas.

The staff is convinced that the future needs of the City of Boston and its Metropolitan area would be served best by a basic regional expressway system similar in concept to the proposals set forth in the 1948 Master Highway Plan and the 1950 General Plan for Boston.

The staff proposes:

(1) That the basic regional expressway plan as shown in figure 5 be completed as soon as possible;

(2) That first priority be given to the construction of the Inner Belt which should be built as a depressed roadway along the Ruggles Street alignment from the end of the Central Artery at Southampton St. to a crossing of the Charles River west of the Boston University Bridge;

(3) That either the Massachusetts Turnpike extension, or the Western Expressway be constructed from Weston to end at a direct connection with the Inner Belt;

(4) That the Southwest Expressway be constructed along an alignment passing through Hyde Park and Jamaica Plain east of the Providence Division of the New Haven Railroad through Forest Hills and west of Franklin Park to a direct connection with the Inner Belt in Roxbury;

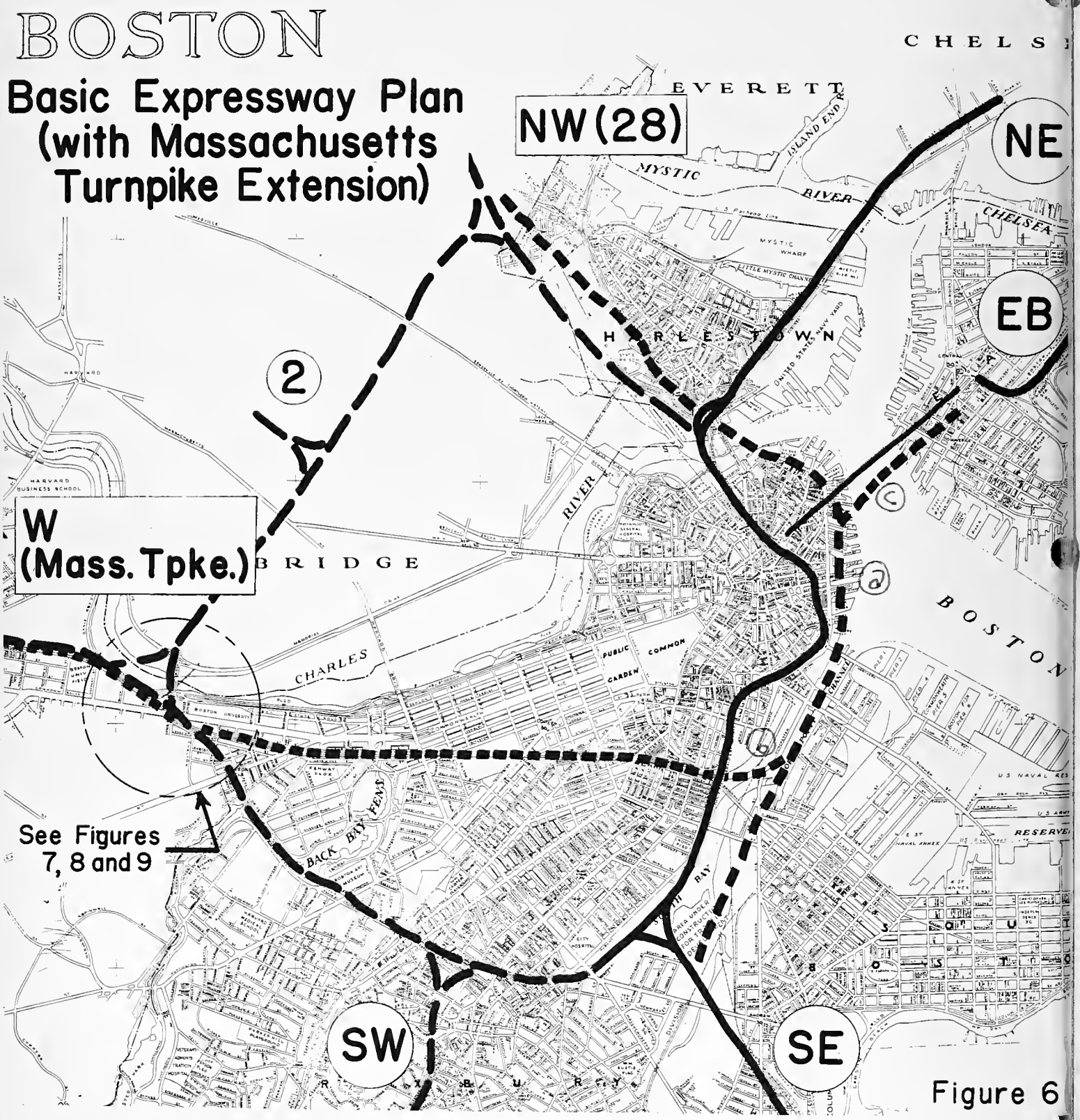

BOSTON
Basic Expressway Plan
(with Massachusetts
Turnpike Extension)
NW(28)
NE
EB
W
(Mass. Tpke.)
SW
SE
2
See Figures
7, 8 and 9
EVERETT
CHELSEA
CHARLES
RIVER
BOSTON

Figure 6

B. Addition of the Massachusetts Turnpike Extension to the Basic Expressway Plan.

The Massachusetts Turnpike Authority, an agency created by the Commonwealth of Massachusetts, is now empowered to construct an extension of the Turnpike through downtown Boston. It is the understanding of the staff that the Turnpike Authority intends to construct such an extension as soon as it can obtain the necessary financing. The staff has no information as to when the Turnpike Authority intends to market its bonds.

The staff is convinced that the Basic Expressway Plan should be completed whether or not the Massachusetts Turnpike Extension is constructed through downtown Boston.

If the Massachusetts Turnpike Extension is constructed through downtown Boston to the South Station, and if the Inner Belt and other portions of the Basic Regional Expressway system are not constructed, the staff anticipates that:

(1) The proper operation of the Central Artery (constructed at a cost in excess of $100 million) will be seriously impaired;

(2) Surface street congestion in the Dewey Square area (which will be one of the worst problem intersections in downtown Boston after completion of the Central Artery) will be materially increased;

(3) The demand for additional parking spaces will exceed any official proposals yet made for the construction of new parking facilities in downtown Boston.

The Central Artery was intended to function primarily as an access road to downtown Boston. It is designed for low speed operation and provided with (20) "off" and "on" ramps serving sections of the downtown area.

The Massachusetts Turnpike Extension will add a large volume of "through" traffic from the west directly onto the Central Artery at the proposed interchange near Broadway, and will induce a large volume of "through" traffic from the north and northeast onto the Central Artery by way of the Mystic River Bridge and the Sumner Tunnel.

The staff estimates that the effective capacity of the Central Artery will be about 120,000 vehicles per day. This capacity will be reached even if no additional expressways are constructed. If the Massachusetts Turnpike Extension is constructed, the staff estimates that it could directly add and indirectly induce well over 50,000 additional vehicles per day onto an Artery which would already be at capacity.

Without the Inner Belt, the Central Artery would have to carry both traffic destined for downtown Boston as well as "through"

traffic. The Massachusetts Turnpike Extension would add appreciably to both types of traffic. If more "through" traffic is introduced onto the Artery its ability to fulfill its primary function of carrying traffic to and from downtown Boston would be seriously impaired.

With the Inner Belt, an alternate route around downtown Boston would be provided to by-pass "through" traffic thus taking some of the "through traffic" load off of the Central Artery and creating additional capacity for traffic with destinations in downtown Boston.

Even with the Inner Belt, however, the Central Artery would not have sufficient capacity to carry additional traffic brought into downtown Boston by the Massachusetts Turnpike Extension. In order to provide for this additional volume of traffic the staff proposes that an additional expressway route be considered. This route, as shown on figure 6, would run from the intersection of the Southeast Expressway and the Central Artery in the South Bay area approximately parallel to and east of the Artery, through connections with the Sumner Tunnel and the Mystic River Bridge, to the intersection of the proposed Route 28 and the Inner Belt in Somerville.

An expressway along this alignment would satisfy the traffic desires that indicated the need for the "inner expressway" proposed in the Coverdate and Colpitts report (see figure 3). In addition to satisfying traffic desires, the proposed route would produce benefits by adding access and development potential to the South Bay and South Boston industrial areas, and could be coordinated with plans for redevelopment of the downtown Boston waterfront. The "inner expressway" route proposed by Coverdale and Colpitts would remove valuable taxable property in downtown Boston and would not add benefits comparable to those described above.

Surface Street Traffic and Parking

If the Massachusetts Turnpike Extension is constructed through downtown Boston ending at a connection with Summer Street near South Station as indicated in the Coverdale and Colpitts report, the additional vehicles poured onto the surface street system will compound the traffic congestion at Dewey Square. Dewey Square will be one of the few major downtown street intersections which will have increased traffic congestion after the completion of the Central Artery in the opinion of Boston traffic officials. Expected traffic volumes will be so high that the traffic signal system proposed for Dewey Square will have no time allowance for pedestrian crossings.

A new expressway parallel to the Central Artery as proposed above would probably divert some of the vehicles from Dewey Square, but additional means would be required to provide more effective relief from surface street traffic congestion. The

staff proposes that the provision of a massive parking facility in the South Station area with connections from the Central Artery and Massachusetts Turnpike be studied as a possible means for relieving surface street congestion and satisfying the increased downtown parking needs that would result from the addition of the Massachusetts Turnpike Extension to the Basic Expressway System.

In summary, if the Massachusetts Turnpike Extension through downtown Boston is added to the Basic Expressway System, the staff proposes: (See figure 6)

(a) that consideration be given to the construction of an additional expressway approximately parallel to and east of the Central Artery from the intersection of the Southeast Expressway through connections with the Sumner Tunnel and the Mystic River Bridge to the intersection of the proposed Route 28 and the Inner Belt in Somerville;

(b) that consideration be given to the construction of a parking facility in the South Station area with connections to the Central Artery and the Massachusetts Turnpike Extension;

(c) that consideration be given to the construction of a second two-lane tunnel under Boston Harbor east of the Sumner Tunnel.

C. Mass Transportation and Parking

It is apparent from the analysis of past traffic data and the predictions of future traffic volumes that have been made for the Boston Metropolitan Area that none of the regional expressway systems yet proposed will be able to meet future traffic needs.

The 1957 Coverdale and Colpitts report, for example, estimated potential 1975 traffic volumes in excess of 350,000 vehicles a day for portions of the Central Artery. This would indicate a need for more than 15 lanes of expressway where there are now only six. The 1957 report also estimated that almost the entire proposed expressway system within the limits of the City of Boston would not have sufficient capacity to carry the traffic volumes estimated for 1975. The Coverdale and Colpitts report offered no other suggestions for coping with future traffic overloads except to say:

> "The present Master Plan should not be considered to be the ultimate network which will serve Boston forever but the proposed and existing expressways, together with improvements to major city streets and some additions as needed, will constitute the most practicable satisfactory means of meeting Metropolitan Boston's traffic needs of the future."

A more reasonable position was taken in the 1948 "Master Highway Plan for the Boston Metropolitan Area" which stated:

> "If rapid transit facilities are not extended and improved, the system of expressways recommended will be inadequate to handle the volumes of traffic that will be generated in the outer and rapidly growing portions of the metropolitan district.
>
> The expressways do not offer a rubber tired alternate to railborne rapid transit. The vast number of people to be handled by public transportation would make such an expedient economically unsound. Furthermore, the downtown street system would be unable to absorb any significant portion of the number of buses that would be involved."

The staff of the City Planning Board is convinced that a workable solution to the transportation problem in Boston and the Metropolitan Area cannot be achieved by expressways alone and must include expansion and improvement of mass transportation and fringe parking facilities.

The staff is convinced that the extension and improvement of MTA rapid transit lines and the expansion of the MTA fringe parking lot program coordinated with expressway improvements would:

a. be the cheapest and best way to improve access to downtown Boston and thereby help maintain

downtown activities and property values;

b. help relieve traffic congestion on the in-town portions of the expressways by making possible the transfer of great numbers of commuter vehicles during rush hours from the expressways to fringe parking lots outside the central city area. This would also reduce the necessity for continually adding expensive expressway lanes to handle future traffic needs;

c. reduce the pressure for constructing additional costly parking facilities in downtown Boston, and by removing some of the commuter vehicle demand for all-day parking spaces, permit more downtown spaces to be used for short-term parking. Additional parking spaces available for short term use could encourage more shoppers and other downtown visitors to drive downtown during the day when traffic conditions are more favorable than at rush hours.

IV. EXPRESSWAYS AND COMMUNITY DEVELOPMENT

A. Expressways, Land Use and Land Values

The locations of expressways, interchanges and access ramps are important determinants of the use and the value of adjacent land. Access provided to vacant land by new expressways could increase the value of the land for the location and construction of active tax paying development. New expressways constructed through residential areas could dictate changes in land use from residential to commercial or industrial if the access provided by new roads would enhance the value of the area for non-residential development. The location and design of expressways must be carefully related to the use of land and prospects for land development in the city in order that as much value as possible in terms of increased tax revenue derived from expressway inspired construction may be realized to compensate for the taxable property which would be removed to make way for the expressways.

B. Expressways and Appearance

Expressways that are not located or designed properly can reduce the value of adjacent land. The appearance of expressways which must be located in areas where land use changes are not intended must be treated with utmost skill and sensitivity so that they will not detract from the value of existing property.

The staff recommends that expressways in the City of Boston should be constructed as depressed roads wherever possible in order to minimize blighting effects. Experience in Detroit and other cities has demonstrated that depressed roads are often less expensive than elevated roads and are much less likely to detract from the value of adjacent property.

Where elevated structures have to be constructed, special care should be taken in the design of the structures and choice of materials so that blighting effects will be minimized and things of reasonable beauty can be created. The additional cost of good design, if any, would be far outweighed by the benefits to the adjacent property.

C. The Inner Belt, the Southwest Expressway and Urban Renewal

The Inner Belt and the Southwest Expressway if properly located could provide value adding access to areas in Hyde Park, Jamaica Plain and Roxbury which are now deteriorating or in stages of arrested development. The Mayor's building demolition program has left large areas of vacant land in the Madison Park section of Roxbury which will remain unuseable, untaxable and hazardous to public health and safety for an indefinite period unless and until the Inner Belt is constructed to provide access to the area and enhance its value for new taxable development. The Southwest Expressway passes near the western edge of an area where an Urban Renewal of neighborhood rehabilitation is proposed. Unless and until the Southwest Expressway is constructed, the highest potential use of this area cannot be realized.

V. REGIONAL TRANSPORTATION PLANNING AND ACTION

All types of transportation facilities are needed to move people and goods to, from, in, through and by the City of Boston. Expressways alone cannot do the job. Although the regional expressway system has been treated as a separate entity in this report, it is only one portion of the transportation network in the Boston area.

A number of plans and reports have been cited in the course of this statement. Many other studies of parts of the transportation network in this area have been published in recent years, but no agency has yet produced a comprehensive plan for the type of coordinated regional transportation that is required in the Boston area.

And even if an overall transportation plan were in existance, there is no agency capable of carrying out such a plan. Highways can be built within the City of Boston by the City itself, by the Massachusetts Department of Public Works, by the Metropolitan District Commission, by the Massachusetts Turnpike Authority and by the Massachusetts Port Authority. Mass transportation facilities are planned and constructed by the Metropolitan Transit Authority. Other mass transportation facilities are provided by private railroad and bus lines. Parking facilities are being built by the City, the Metropolitan Transit Authority, other public agencies and private business.

The lack of coordinated planning and construction of transportation facilities is injurious to the effectiveness of transportation and to the economy of the City and the region. A comprehensive plan for all transportation facilities in the Boston area is needed, and a device for coordinating the planning and construction of transportation facilities by existing agencies is needed.

Some expressways, mass transportation and parking facilities will have to be constructed of necessity before a regional plan and regional transportation agency can be created. A means must therefore be found to coordinate the activities of existing agencies in the interim period before a permanent workable solution to the problems of regional transportation can be achieved.

Until such time as a comprehensive regional transportation plan is drawn up and an agency capable of putting it into operation is created, the staff of the Planning Board proposes:

1. that an Interim Joint Board of transportation and planning officials be established to coordinate the design and construction of highways, mass transportation and parking facilities in the Boston Metropolitan Area, and

2. that the Mayor of Boston be requested to initiate immediate action with the appropriate existing agencies of city and state government in order to achieve this end.

VI. SPECIAL SUPPLEMENT TO THE EXPRESSWAY POLICY REPORT

Two subjects of specific interest to the Planning Board are included in this special supplement apart from the general expressway policy statement.

A. A brief report of approximate costs for land takings and construction of the Inner Belt and Massachusetts Turnpike Extension in Boston

B. A brief description of three possible crossings of the Charles River for the Inner Belt.

A. Approximate Cost Estimates of the Inner Belt and the Massachusetts Turnpike Extension

1. The Inner Belt in Boston

The portion of the Inner Belt route investigated was an eight lane depressed section running from the end of the Central Artery at Southampton St. through the Madison Park section of Roxbury, along the Ruggles St. alignment through Brookline near St. Mary's St. to the Charles River crossing at the Boston University Bridge.

Approximate length from Southampton St. to the Charles River:	2.5 miles
Approximate assessed valuation taken (1957) figures	$4 million
Estimated construction costs including the construction of local street bridges, a conduit for the Muddy River and a parking deck in the Museum property, but not including interchanges	$31 million

This road would be in the federal interstate highway system and eligible for 90% federal aid.

2. The Massachusetts Turnpike Extension in downtown Boston

The portion of the Massa Turnpike Extension investigated was a six-lane section running alongside and north of the Boston and Albany main line tracks from the Boston University Bridge to the Central Artery at Broadway.

The staff has not been able to obtain any detailed design information about the Massachusetts Turnpike so that the cost estimates for this facility are highly speculative.

On the basis of a 140' wide right-of-way which would allow for six lanes of expressway and two railroad tracks, the following estimates were made:

Approximate length from the Boston University Bridge to the Central Artery at Broadway:	2.75 miles
Approximate assessed valuation taken (1957) figures):	$5 million
Estimated construction costs including the reconstruction of local street bridges, widening of the railroad right-of-way, relocation of the railroad tracks, but not including interchanges or the stub extension to Summer Street from the Central Artery	$30 million

The foregoing estimates are not intended to be comparative costs since the highways themselves are not comparable. The Inner Belt is eight lanes wide, the Massachusetts Turnpike is six lanes wide, and, the roads serve different functions. Furthermore, cost estimates of the proposed Turnpike interchanges at Copley Square and at the Central Artery could not be made because of the lack of design information so that the figures shown above are incomplete.

B. The Charles River Crossing

The location and design of the Inner Belt through Boston, Brookline, Cambridge and Somerville and details of the Charles River crossing have been under discussion by the technical staffs of the four communities mentioned for the past twelve months. Representatives of Harvard, Boston University and the Massachusetts Institute of Technology who have specific institutional interests in the matter have also participated in some of the discussions.

Of a number of proposals considered, three major possibilities are presented herewith:

1. A crossing near Cambridge Street with the Massachusetts Turnpike or Western Expressway interchange with the Inner Belt located over the Boston and Albany railroad yard. (Figure 7).

   Alternate routes for the Inner Belt through Brookline are shown on this sketch. The Alternate route, a depressed road, is preferred by Brookline.

2. A crossing between Buick and Gaffney Sts. with the interchange partially over the river and the Inner Belt section depressed through Brookline. (Figure 8).

3. A crossing just west of the Boston University Bridge with the Inner Belt elevated over Commonwealth Avenue. (Figure 9).

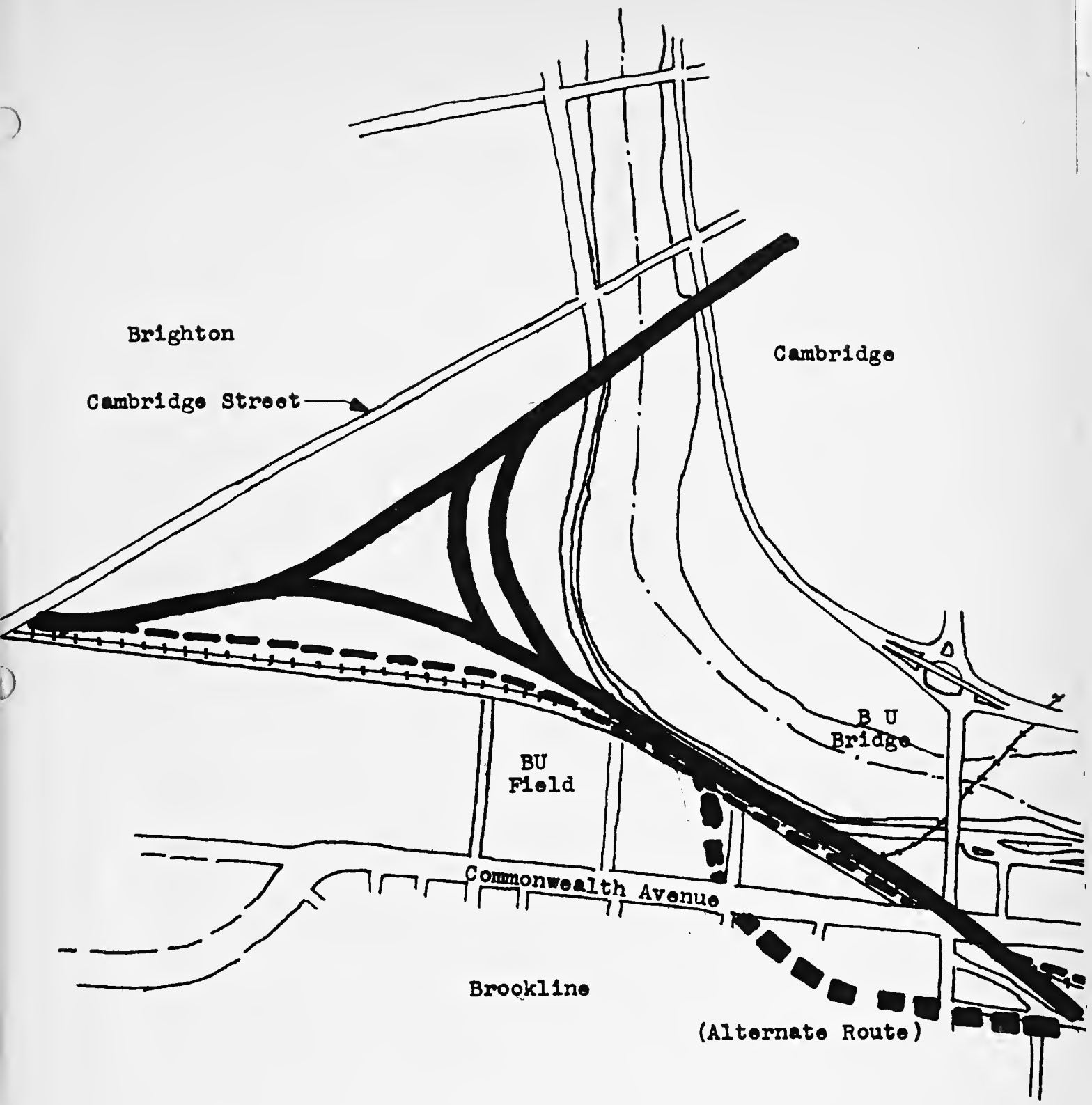
The Cambridge Street crossing (Figure 7) would probably be the least expensive to construct since most of the structure would be over dry land and there would be only a single span across the river. However, this location would probably not be satisfactory to the Cambridge Planning Board. Also, it would not lend itself readily to the extension of the Massachusetts Turnpike into downtown Boston should that be built.

The Buick-Gaffney Street crossing (Figure 8) would probably be satisfactory to all of the communities concerned and would allow for the possible extension of the Massachusetts Turnpike into downtown Boston passing under Commonwealth Avenue. It is probable, however, that state and federal highway engineers would object to the extensive curves introduced in the Inner Belt by this location.

The crossing at the Boston University Bridge (Figure 9) would probably be satisfactory to all of the communities concerned. Brookline would have some objections because of the possibilities of blighting effects on nearby residences of the elevated expressway structure. These objections might be mitigated somewhat by proper design treatment of the structure. Boston University probably would object to this location since the crossing would pass between the two riverfront sections of their campus. However, the B. U. campus is already interrupted at this point by the existing Boston University Bridge, the General Fireproofing Company, the Boston and Albany railroad mainline and a used car lot.

The crossing at the Boston University Bridge (Figure 9) appears to be the most likely possibility at this time.

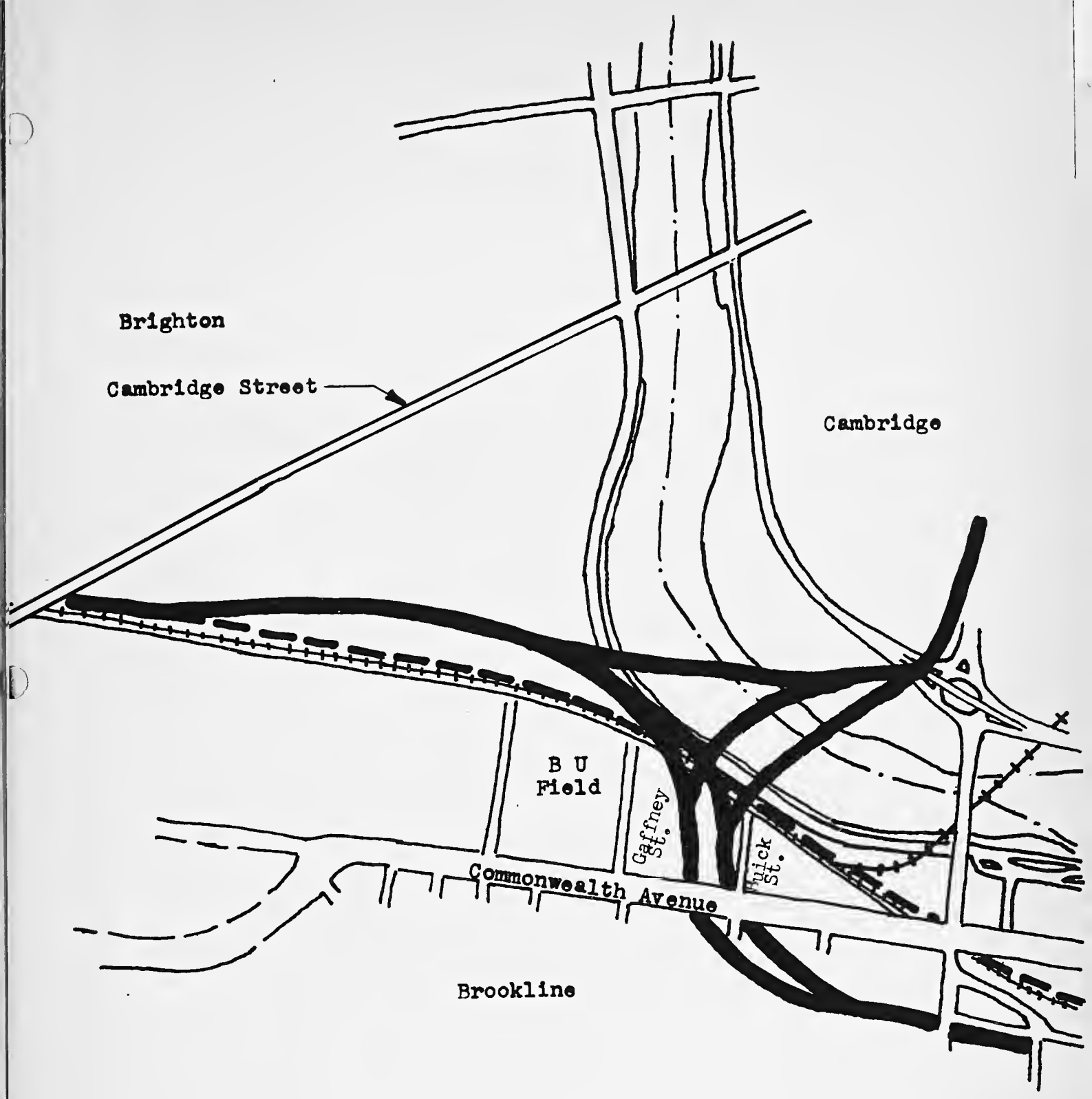
Cost estimates of the expressway interchange and the crossing of the Charles River have ranged from $18 million to $22 million.



The Bridge Over The River Charles

Figure 7

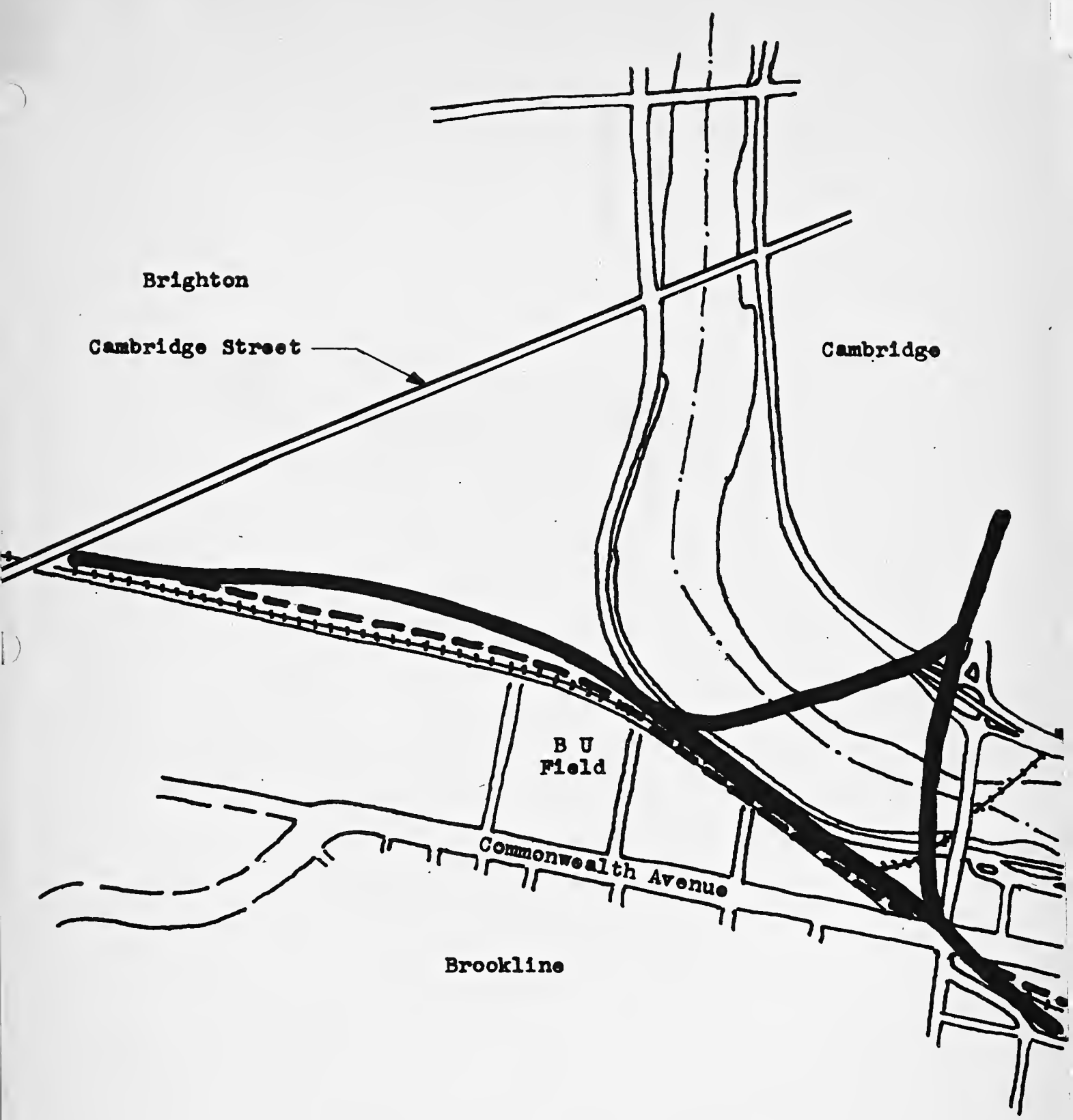
Figure 7



The Bridge Over The River Charles

Figure 8

Figure 8



The Bridge Over The River Charles

Figure 9

Figure 9